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GUMMA OF MUSCLE

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ALL modern authorities are agreed that gumma of muscle is now a relatively rare manifestation of syphilis. The condition is adequately described by Harrison and Lees who state that the triceps, biceps, sterno-mastoid, tongue, rectus abdominis and the calf muscles are most commonly involved. The gummata may retrogress and undergo calcification, or even ossification, or may break through the skin to form typical tertiary ulcers. Stokes believes the condition is quite rare and Haines, in reporting a case of gumma of the left rectus abdominis, considers epigastric hernia, sarcoma of the rectus sheath, Paget's recurring fibroma and lipoma and rhabdomyoma of the rectus muscle in the differential diagnosis.

It is of interest to distinguish gumma of muscles, as described above, from subcutaneous gummata which may be multiple and symmetrical and affect the tendons in relation to the knee and elbow joints. This latter condition, which has been described by Lane, Wakeley, Parkes, Weber, Goodman and Young and Wangenstein, is also uncommon and, in some of the cases described, trauma appears to be a precipitating factor in the break down of these subcutaneous gummata.

The gumma of muscle usually responds rapidly to active anti-syphilitic treatment and it is therefore regrettable that the condition is often only recognised after surgical measures, following on a wrong diagnosis, have accelerated the tissue destruction. A useful purpose may therefore be served by recording the following example of gumma of the rectus abdominis although, in addition, the case presents other features of interest.

CASE REPORT

The patient was born in 1892 and contracted syphilis in 1916 but failed to seek treatment for this infection. In 1933 he was treated by his panel doctor for "kidney

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trouble " and in September, 1936, he was admitted to a neighbouring hospital complaining of vague epigastric discomfort of several weeks' duration. Investigation at this time, which included gastric analysis, barium meal and examination of the fæces, urine and sputum, revealed no abnormality but the serum Wassermann reaction was found to be strongly positive.

He was accordingly referred to the Central Clinic, Mill Road Infirmary, Liverpool, where he was first seen on October 5th, 1936. His complaint then included mild epigastric discomfort over a period of several weeks and breathlessness on exertion and puffiness of the eyelids for the past four weeks. Headache, vomiting, actual pain, cough and loss of weight were denied, micturition and bowel action were reported normal and the appetite was said to be slightly impaired.

Clinical examination showed the patient to be pale and rather thin. The liver was palpable and there was a localised area of tenderness in the abdominal wall about three inches below the xiphoid process in the mid-line of the epigastrium. No epigastric hernia or abnormal mass was detected and rectal examination revealed no abnormality. Chronic bronchitis was present, whilst examination of the cardio-vascular system showed considerable arterio-sclerosis, left-sided cardiac enlargement and weakness of the heart sounds except for accentuation of the second sound at the aortic area. The cardiac rate and rhythm were normal, œdema was absent and the blood pressure was 170 systolic and 95 diastolic. No lesion was detected on thorough examination of the central nervous system. A specimen of urine was obtained, blood was taken for a confirmatory Wassermann reaction and the patient was instructed to return in one week's time. The urine contained a trace of albumin and occasional red blood cells and hyaline casts.

When the patient returned on October 12th the clinical picture had undergone a dramatic change. The localised area of tenderness, previously noted in the mid-epigastrium, was now replaced by a sloughing, indurated ulcer which was diagnosed as a breaking-down gumma of the left rectus abdominis muscle, with involvement of the adjacent superficial layers of the abdominal wall. The clinical findings were otherwise as before except that a mild degree of œdema of the ankles was noted on this

occasion. The patient was admitted to hospital and massive doses of potassium iodide were administered, eusol dressings being applied locally to clear up the super-added secondary infection. Throughout the next ten days the gumma became cleaner but it had also enlarged until its surface diameter was two inches, while it had eroded the abdominal wall down to the peritoneum. To prevent perforation of the abdominal wall it was then decided to make the anti-syphilitic measures more active, in spite of the contra-indications presented by the cardiac and hepatic enlargement and the apparent impairment of renal function. Accordingly bi-weekly, intravenous injections of 2 gm. neocryl, a pentavalent arsenical preparation, were commenced and *lotio nigra* was applied locally. There was an excellent therapeutic response which permitted the cessation of the injections after 16 gm. neocryl had been administered and by 22nd November the continuity of the tissues of the abdominal wall had been completely restored. In spite of this satisfactory local result, the appearance of ascites on 8th November, and of mild jaundice a week later, heralded the fatal termination of the patient's illness. A tentative diagnosis of hepatic cirrhosis was made and death occurred on 24th November from terminal pneumonia, a few days after abdominal paracentesis had been performed.

At autopsy the liver, which was much enlarged and weighed nine and a quarter pounds, presented gross carcinomatosis, which explained the portal obstruction and the jaundice. It was only after an exhaustive search that the discovery of a small nodule, the size of a pea, situated in the stomach wall near the pylorus, indicated the primary neoplasm. Syphilitic aortitis and terminal pneumonia were the other features. Histological examination confirmed the diagnosis of gastric carcinoma with secondary deposits in the liver and established the gummatous nature of the healed lesion in the rectus abdominis muscle.

COMMENTARY

The case reported above presents several points of interest. As an illustrative example of gummatous involvement of muscle it indicates one of the characteristic sites of the condition and in this connection it is of

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interest to recall Rutherford Morison's observation that "syphilitic ulcers choose the mid-line where the blood supply is normally the least." The rapid destruction of tissue and the equally prompt response to anti-syphilitic therapy, even in a case dying of very active malignant disease, demonstrate the gummatous nature of the epigastric lesion and, in conjunction with the histological examination, exclude a metastatic origin. The extensive replacement of the liver substance by metastases from a primary growth that had produced no demonstrable departure from normal in the form and function of the stomach emphasises the difficulty of complete diagnosis in this case.

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